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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 28

Application Number: 08/978,753
Filing Date: November 26, 1997
Appellant(s): MARKOVIC ET AL.

David J. Goren
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/3/2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The Appellant's statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments

The Appellant's statement of the status of amendments contained in the brief is correct—no amendments have been presented by the Appellant subsequent to the final rejection mailed on 4/3/2002.

(5) Summary of the Invention

The summary of the invention in the brief is correct.

(6) Issues

The Appellant's statement of the issues contained in the brief are correct.

(7) Grouping of the Claims

The following groups of claims stand or fall together: (1-22, 28-37, and 41-45), (5-11, 28-29, 32-33, 35-37 and 41), (8-11, and 35-36), (13-15), (19-20, and 30-31), (43-44), 38, 39, and (46-47).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

Pat. # 5,774,232, Tabata (June 30, 1998, filed on September 21, 1995)

Pat. # 5,696,605, Miller (December 9, 1997, filed on November 20, 1992)

Pat. # 5,752,053, Takakura (May 12, 1998, filed on May 18, 1995).

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

A. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

B. Claims 1-47 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata et al (Pat. # 5,774,232, 6/30/1998, filed on 9/21/1995) in view of Miller et al (Pat. # 5,696,605, 12/9/1997, filed on 11/20/1992), and further in view of Takakura et al, hereinafter Takakura (Pat. # 5,752,053, 5/12/1998, filed on 5/18/1995).

Regarding independent claim 1, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-

34). Tabata et al fail to teach: *receiving in a computer a first electronic document.* However, Miller et al disclose: "....U/I 52 interfaces....enabling the operator to program print jobs and other instructions.....Main memory 56 has plural hard disks....for storing .....scanned image data....." (Col. 4, lines 11-32). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that this storage of information would have allowed the operator to process the stored document.

Moreover, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: *receiving in the computer a user input that selects an instruction for assembling a hard copy document.* However, Miller et al disclose: "....U/I 52 interfaces....enabling the operator to program print jobs and other instructions.....Main memory 56 has plural hard disks....for storing .....scanned image data....." (Col. 4, lines 11-32). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that this storage of information would have allowed the operator to process the stored document.

Furthermore, Tabata et al disclose: "When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, and fig.13A-14). Tabata et al fail to explicitly disclose: *determining in the computer indicia of assembly and a visual appearance of a first electronic document as if printed and assembled in accordance with the instruction and displaying the determined visual appearance..* However, Takakura teaches:

"FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a visual representation—"forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11), and Tabata teaches above displaying a document representation along with binding indicia positioned as-if printed.

Regarding claim 2, which depends on claim 1, Tabata et al disclose:.-- "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al disclose: "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al fail to explicitly disclose: *generating a second electronic document which depicts the first electronic document and displaying the second electronic document.* However, Takakura teaches: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page"

(col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display or output of visual representation—" forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 3, which depends on claim 2, Tabata et al disclose: *receiving a second user input that selects a second instruction*.....-- "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al teach in the previous quote, the selection from a menu of options to instruct the system to display of the appearance of a document as if it was printed-- *a second user input*--, and bind it with a staple.

Regarding claim 4, which depends on claim 2, Tabata et al disclose: -- "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al fail to explicitly disclose: *modifying a copy of the first electronic document to generate the second electronic document.* However, Takakura teaches: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the

third page" (col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of the selection from a menu of options to instruct the system to display of the appearance of a document as if it was printed, and stapling/binding taught by Tabata et al, and the display or output of visual representation—" forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 5, which depends on claim 4, Tabata et al disclose: "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65).). Tabata et al fail to explicitly disclose: *...modifying the copy of the first electronic document includes adding a tile depicting a change in the visual appearance.* However, Takakura teaches: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the

invention to have combined the indication of the selection from a menu of options to instruct the system to display of the appearance of a document as if it was printed, and stapling/binding taught by Tabata et al, and the display and modification of a document by adding a preformatted tile—" forms"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 6, which depends on claim 5, Tabata et al disclose: "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, Fig. 20a). Tabata et al fail to explicitly teach *retrieving the tile from a database.* However, Takakura teaches: "A display pattern called a "form" is added to these three input editing operations" (col. 4, lines 23-31, col. 5, lines 5-26, Fig. 6E-F, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the stapling/binding taught by Tabata et al, and the retrieval of a preformatted tile—" forms"—determining the visual appearance of a document as if printed from a database of forms, as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 7, which depends on claim 6, Tabata et al disclose: "When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, Fig. 20a). Tabata et al fail to explicitly teach *the database includes an entry for each instruction.* However, Takakura teaches: "A display pattern called a "form" is added to

these three input editing operations" (col. 4, lines 23-31, col. 5, lines 5-26, Fig. 6E-F, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the stapling/binding taught by Tabata et al, and the retrieval of a preformatted tile—" forms"—determining the visual appearance of a document as if printed from a database using corresponding file name or identifier as was well known in the art at the time of the invention, as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 8, which depends on claim 7, Tabata et al disclose: "image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book" (Col. 6, lines 18-34). Tabata et al fail to teach: *each entry includes a first tile associated with a front page.... a second tile associated with an inside right page...a third tile associated with an inside left page...and a fourth tile associated with a final page.* However, Takakura discloses: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and the graphical tiles taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18).

Regarding claim 9, which depends on claim 8, Tabata et al disclose: "image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book" (Col. 6, lines 18-34). Tabata et al fail to teach: *determining whether the page....is a first page, inside right page, an inside left page, or a final page.* However, Takakura discloses: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and the graphical tiles describing a printed-visual appearance of a document taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18).

Claims 10-11 are directed towards a method for implementing the steps found in claims 8, and 8 respectively, and are similarly rejected.

Regarding claim 12, which depends on claim 1, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .... *user input is received from an electronic file.* Tabata et al fail to explicitly teach *the database includes an entry for each instruction.* However, Takakura teaches: "A display pattern called a "form" is added to these three input editing operations" (col. 4, lines 23-31, col. 5, lines 5-26, Fig. 6E-F, and col. 6, lines 26-57). It would

have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the stapling/binding taught by Tabata et al, and the retrieval of a preformatted tile—" forms"—determining the visual appearance of a document as if printed from a database, as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 13, which depends on claim 1, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .... *The instruction identifies a printing media to be used*.... However, Miller et al disclose: "....the print media may comprise of any variety of sheet sizes....." (Col. 3, lines 10-20). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that this would have allowed the operator to select from a wide variety of printing media.

Regarding claim 14, which depends on claim 13, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .... *the instruction identifies the weight, color, texture*..... However, Miller et al disclose: : "....the print media may comprise of any variety of sheet sizes....." (Col. 3, lines 10-20). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al,

because Miller et al teach above, that this would have allowed the operator to select from a wide variety of printing media.

Regarding claim 15, which depends on claim 13, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .... *the instruction identifies a pre-existing image*..... However, Miller et al disclose: : "....the print media may comprise of any variety of sheet sizes....." (Col. 3, lines 10-20). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that this would have allowed the operator to select from a wide variety of printing media.

Regarding claim 16, which depends on claim 1, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .....*the instruction identifies a cover to be used*..... However, Takakura teaches: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the

invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a visual representation—"forms", and "print binding"—indicating the front cover of a document input into a computer as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 17, which depends on claim 1, Tabata et al disclose: ....*the instruction identifies a binding to be used*.....-- "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al teach in the previous quote, the selection from a menu of options to instruct the system to display of the appearance of a document as if it was printed, and bind it with a staple.

Regarding claim 18, which depends on claim 17, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .....*the instruction identifies a velo ™, tape, spiral*.... ..... However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to had performed this step, because Tabata et al teach above, the sorting of the document in the order selected by the user and then binding the document.

Regarding claim 19, which depends on claim 1, Tabata et al disclose: .....*the instruction identifies a physical modification of a printing media.* .....-- "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-

34). Tabata et al teach above, the sorting of the document in the order selected by the user and then binding the document-- *physical modification.*

Regarding claim 20, which depends on claim 19, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: *the instruction identifies a hole punching, folding or cutting of the printing media.* However, Miller et al disclose: "....signature set stitcher 10a, signature set folder 10b, and signature set trimmer 10c....." (Col. 3, lines 40-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that these devices enabled the system to produce a finished document.

Regarding claim 21, which depends on claim 1, Tabata et al disclose: ...*the user input is received through an interactive user interface*-- "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al teach in the previous quote, the selection from a menu of options-- *an interactive user interface*-- to instruct the system to display of the appearance of a document as if it was printed, and bind it with a staple.

Regarding claim 22, which depends on claim 21, Tabata et al disclose: ...*receiving the user input includes displaying a plurality of instruction identifiers*.....-- "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al teach in the previous quote, the selection from a menu of options--

instruction identifiers-- to instruct the system to display of the appearance of a document as if it was printed, and bind it with a staple.

Claim 23 is directed towards a method for displaying a finished hard copy document for implementing the steps found in claim1, and is similarly rejected.

Claim 24 is directed towards a computer-assisted method for creating a hard copy document for implementing the steps found in claim1, and is similarly rejected.

Regarding claim 25, which depends on claim 24, Tabata et al disclose: ...*the document assembler prints the electronic document*.....--"....When the staple function is selected, the control section 2108 displays a staple position input screen.....the user touches 'Execute' on the screen, the selected staple position is transferred to the control section....." (Col. 20, lines 57-65, and Fig. 20A-20E). Tabata et al teach in the previous quote, the printing, and binding with a staple of a document.

Regarding claim 26, which depends on claim 24, Tabata et al disclose: "....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65). Tabata et al fail to explicitly disclose: *creating a second electronic document which depicts the visual appearance of the hard copy document*..... However, Takakura teaches: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It

would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a visual representation—"forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Claim 27 is directed towards a computer program for implementing the steps found in claim 1, and is similarly rejected.

Regarding claim 28, which depends on claim 5, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: *the computer receives user input that selects a plurality of instructions.* However, Takakura teaches: "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62, col. 5, lines 5-26, col. 4, lines 22-31, Fig. 6E-F, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the editing of a visual representation of a document input into a computer as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Claim 29 is directed towards a method for implementing the steps found in claim 8, and is similarly rejected.

Regarding claim 30, which depends on claim 20, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .....*the instruction identifies cutting of the printing media.* However, Miller et al disclose: "....signature set stitcher 10a, signature set folder 10b, and signature set trimmer 10c....." (Col. 3, lines 40-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that these devices enabled the system to produce a finished document.

Regarding claim 31, which depends on claim 20, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: .....*the instruction identifies folding of the printing media.* However, Miller et al disclose: "....signature set stitcher 10a, signature set folder 10b, and signature set trimmer 10c....." (Col. 3, lines 40-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Tabata et al and Miller et al, because Miller et al teach above, that these devices enabled the system to produce a finished document.

Regarding claim 32, which depends on claim 5, Tabata et al disclose: ...*the instruction identifies the size of the tile*--"....When the staple function is selected, the control section 2108

displays a staple position input screen....." (Col. 20, lines 57-65, Fig. 20a), and -"....it is assumed herein that a sheet ...having size B4 is shown....." (Col. 17, lines 44-67). Tabata et al teach in the previous quote, specifying the size of the paper used for printing a document.

Regarding claim 33, which depends on claim 5, Tabata et al disclose: ...*the instruction identifies the position of the tile*--"....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, Fig. 20a), and -"....it is assumed herein that a sheet ...having size B4 is shown....." (Col. 17, lines 44-67). Tabata et al teach in the previous quote, specifying the position of the tile used for printing a document.

Regarding claim 34, which depends on claim 4, Tabata et al disclose: .....*extracting information from the first electronic document*-- "....A first image....is formed as described above .....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al teach in the previous quote, the extraction of image information to be printed.

Regarding claim 35, which depends on claim 5, Tabata et al disclose: ...*adding a tile*.....--"....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, Fig. 20a), and -"....it is assumed herein that a sheet ...having size B4 is shown....." (Col. 17, lines 44-67). "A display pattern called a "form" is added to these three input editing operations" (col. 4, lines 23-31, col. 5, lines 5-26, Fig. 6E-F, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the stapling/binding taught by Tabata et al, and the addition of a preformatted tile—" forms"—determining the visual appearance of a document as if printed from a database of forms, as taught by Takakura, because Takakura teaches "a format can be

changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Claim 36 is directed towards a method for implementing the steps found in claim 8, and is similarly rejected.

Regarding claim 37, which depends on claim 5, Tabata et al disclose: *...the instruction identifies a binding option...*--"....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, Fig. 20a), and -"....it is assumed herein that a sheet ...having size B4 is shown....." (Col. 17, lines 44-67). Tabata et al teach in the previous quote, specifying the position of a binding used for printing a document.

Claim 38 is directed towards a method of depicting a hard copy document for implementing the steps found in claim 1, and is similarly rejected.

Claim 39 is directed towards a method of depicting a hard copy document for implementing the steps found in claim 1, and is similarly rejected.

Claim 40 is directed towards a method of depicting a hard copy document for implementing the steps found in claim 1, and is similarly rejected.

Regarding claim 41, which depends on claim 8, Tabata et al disclose: "image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book" (Col. 6, lines 18-34, Fig. 13A). Tabata et al fail to teach: *an organizational layer, a background layer, a printed content layer, a virtual proof annotations layer, and a finishing options layer.* However, Takakura discloses: "FIG. 2A shows a whole document in which the first page is the front cover....The

document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, and col. 6, lines 26-57). It would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the display of staple annotation—*virtual proof annotation*-- of Tabata et al and 83, 85 (Fig. 6F)--*organization information layer*, the form image—*background layer*, 82 (Fig. 6E)--*printed content layer*, 86 (Fig. 6F)—*finishing options layer* describing a printed-visual appearance of a document taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18).

Regarding claim 42, which depends on claim 1, Tabata et al disclose: "....image recording apparatus.....which sorts recording paper with image data recorded thereon with a sorter and binds a bundle of the sorted recording paper with a stapler into a book....." (Col. 6, lines 18-34). Tabata et al fail to teach: *producing the determined visual appearance as output includes displaying the determined visual appearance on a computer monitor.* However, Takakura teaches: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the front cover and the fourth page is printed on the back side of the third page" (col. 5, lines 5-26, col. 4, lines 26-31, Fig. 6E-F, and col. 6, lines 26-57), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a

visual representation—"forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11).

Regarding claim 43, which depends on claim 1, Tabata et al disclose: ....*determining the visual appearance includes obscuring a portion of the output* .....--"....When the staple function is selected, the control section 2108 displays a staple position input screen....." (Col. 20, lines 57-65, and Fig. 20A-20E). Tabata et al teach in the previous quote, the display of the obscured appearance of a document as if it was printed, and bound with a staple.

Claim 44 is directed towards a method for implementing the steps found in claim 1, and is similarly rejected.

Regarding claim 45, which depends on claim 1, Tabata et al disclose: ....*determining the visual appearance includes providing a visual indication of the thickness* .....--"....automatic change mode shown in Fig. 13 (b), a binding space width of recording paper becomes gradually larger....." (Col. 21, lines 40-67). Tabata et al teach in the previous quote, the display of a binding width of the appearance of a document before it was printed, and bound with a staple.

Claim 46 is directed towards a method of depicting a hard copy document for implementing the steps found in claim 1, and is similarly rejected.

Claim 47 is directed towards a method for implementing the steps found in claim 2, and is similarly rejected.

(11) Response to Argument

Regarding independent claim 1, the Appellants submit that the Tabata fails to teach: "determine and then display the visual appearance of the electronic document as if printed and assembled according with an instruction" (p.4, L.15-25). It is noted that the features upon which appellants rely (i.e., "the visual appearance of the electronic document as if printed and assembled according with an instruction") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It seems that the Appellants are reading this claim limitation with a narrower scope than what's actually being recited in the claim. Claim 1 recites: "determining in the computer indicia of assembly and a visual appearance of the first electronic document" L.5-6, and not "display the visual appearance of the electronic document as if printed and assembled according with an instruction". Even if this was the case, Tabata teaches displaying a visual indication(s) or visual appearance of a document as if printed according to a user input as to the type of document assembly—stapling, and binding position—(c.20,L.57-67, fig.13A-14). Miller teaches the display on a computer screen, and printing of a document image (c.4,L.11-32). Tabata, and Miller fail to teach *displaying the determined visual appearance with the indicia of assembly overlaid with the content.*

However, Takakura teaches the superimposing of image patterns on a document displayed as if assembled, bound, and printed on a computer screen by: "FIG. 2A shows a whole document in which the first page is the front cover....The document becomes a double-spread document in which after both sides are printed, the second page is printed on the back side of the

front cover and the fourth page is printed on the back side of the third page" (col. 4, lines 26-31, col. 5, lines 5-26, col. 6, lines 26-57, and Fig. 2A-2C, 6E-F), and "the insertion of the irregular format is designated. (Thus, the print binding is executed on the basis of the different format from the second page)" (col. 10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a visual representation—"forms", and "print binding"--of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11), and Tabata teaches above displaying a document representation along with binding indicia positioned as-if printed. This in turn would enable a user to visualize the document with the desired binding location as if printed, and assembled, before the document is actually printed, thus avoiding trial and error printing.

The Appellants indicate that Takakura does not teach or suggest determining a visual of a document as if printed and assembled according a user input (p.5,L.8-22). As the Examiner explained above, Tabata teaches the assembly/binding display, and Takakura teaches the display of document as-if-printed visual appearance.

Moreover, the Appellants indicate that neither Tabata, Miller, nor Takakura alone or in combination teach or suggest determining a visual of a document as if printed and assembled according a user instruction (p.6,L.1-4). As the Examiner explained above, Tabata teaches the assembly/binding display, and Takakura teaches instruction for the display of document as-if-printed visual appearance.

Regarding claims 1-22, 28-37, and 41-45, the Appellants note that the iconic display of Tabata does not show the content of the scanned document as if printed (p.6,L.9-13). The Examiner disagrees, because Tabata teaches the assembly/binding display of a document (c.20,L.57-67, fig.13A-14). Tabata fails to explicitly teach the document content in a as if printed format. However, Takakura teaches the display of a document as-if-printed visual appearance (c.4, lines 26-31, c. 5, lines 5-26, c. 6, lines 26-57, and Fig. 2A-2C, 6E-F, c.10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a visual representation—"forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11), and Tabata teaches above displaying a document representation along with binding indicia positioned as-if printed. This in turn would enable a user to print the document once, by visualizing the document with the desired binding location as if printed, and assembled, before the document is actually printed, thus avoiding trial and error printing.

In response to appellants' arguments against the references individually (p.6,L.9-p.7,L.3), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding claims 5-11, 28-29, 32-33, 35-37, and 41, the Appellants note that neither Tabata, Miller, nor Takakura teach adding a tile depicting a change in visual appearance of the

document (p.7,L.9-p.8,L.3), and that Takakura's forms are simply part of what is to be printed, and do not show a change in visual appearance resulting from the instruction of assembly (p.8,L.1-3). The Examiner disagrees, because Tabata teaches the assembly/binding display of a document by using an iconic representation(s) of the document with assembly indicia to be used on a document to be printed (c.20,L.57-67, fig.13A-14), Tabata fails to explicitly teach a tile for displaying a change in document appearance. However, Takakura teaches the display of document as-if-printed visual appearance by means of a form image, which introduces a change in the visual appearance of a document to be printed (c.4, lines 26-31, c. 5, lines 5-26, c. 6, lines 26-57, and Fig. 2A-2C, 6E-F, c.10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of the selection from a menu of options to instruct the system to display of the appearance of a document as if it was printed, and stapling/binding taught by Tabata et al, and the display and modification of a document by adding a preformatted tile—" forms"—to a as if printed document, as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18) , and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11). Thus the assembled appearance of the as-if-printed document would be changed with a single output instruction showing the stapling/binding of the document.

Regarding claims 8-11, and 35-36, the Appellants state that neither Tabata, Miller nor Takakura disclose a database with tiles for different pages of the document (p.8,L.23-p.9,L.7). The Examiner disagrees, because although it is true that neither Tabata, nor Miller explicitly teach a database of tiles for the document cover, inside, and final pages. Takakura teaches a

database of tile or forms for changing the visual appearance of front, inside, and final pages (c.4, lines 26-31, c. 5, lines 5-26, c. 6, lines 26-57, and Fig. 2A-2C). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of the selection from a menu of options to instruct the system to display of the appearance of a document as if it was printed, and stapling/binding taught by Tabata et al, and the display and modification of a document by adding a preformatted tile—" forms"—to document pages, to display an as if printed document as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18). Thus the assembled appearance of the as-if-printed document would be changed with a single output instruction showing the appearance along with stapling/binding of the document pages.

Regarding claims 13-15, the Appellants submit that Tabata fails to disclose identifying a printing media to be used in the hardcopy document (p.9,L.20-23). However, the Appellants acknowledges that Miller teaches the identification of print media—variety of sheet sizes, types and colors—but goes on to state that Miller does not teach determining the visual of an as-if-printed and assembled document (p.9,L.23-30). As it has been established above, Takakura teaches the display of a document as-if-printed visual appearance (c.4, lines 26-31, c. 5, lines 5-26, c. 6, lines 26-57, and Fig. 2A-2C, 6E-F, c.10, lines 39-62).

Regarding claims 19-20, and 30-31, the Appellants submit that Tabata fails to disclose a physical modification of a printing media to be used in the hardcopy document (p.10,L.21-23). The Examiner disagrees, because Tabata teaches an instruction for the modification of paper by printing, and binding/stapling a document (c.6, lines 18-34, fig. 17A-20C).

Regarding claims 43-44, the Appellants submit that Tabata fails to teach the obscuring of a portion of the output areas corresponding to the output hardcopy document (p.11,L.14-21). The Examiner disagrees, because Tabata teaches an instruction for the modification/obscuring the portions of a document to be obscured by objects such as a staple (c.20, lines 57-65, fig. 20A-20C).

Regarding claim 38, and in response to appellants' argument that the references fail to show certain features of appellants' invention, it is noted that the features upon which appellants rely (i.e., "Tabata fails to disclose that the instruction identifies a printing media to be used in the hardcopy document" p.12,L.7-8, 12-14) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claim recites "selecting pre-printing physical characteristics of a print media material" L.4, and not the identification of the type of media to be used. Tabata teaches an instruction for the modification or obscuring the pre-printing physical characteristic of portions of a document to be obscure by objects such as a staple to bind pages into a book (c.20, lines 57-65, fig. 13A-14, 20A-20C).

Regarding claim 39, the Appellants assert that Tabata fails to teach the modification of a document printing media (p.14,L.1-2). The Examiner disagrees, because Tabata teaches an instruction for the modification the portions of a document to be bound into a book, by objects such as a staple (c.20, lines 57-65, fig. 20A-20C).

Regarding claim 46-47, the Appellants assert that Tabata do not show the content arranged according to the formatting information (p.15,L.9-10). The Examiner disagrees,

because Tabata teaches the assembly/binding display of a document (c.20,L.57-67, fig.13A-14). Tabata fails to explicitly disclose displaying a document and its formatted content. However, Takakura teaches the display of a document, and its content in a as-if-printed visual appearance (c.4, lines 26-31, c. 5, lines 5-26, c. 6, lines 26-57, and Fig. 2A-2C, 6E-F, c.10, lines 39-62). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the indication of stapling/binding taught by Tabata et al, and the display of a visual representation—"forms", and "print binding"-- of a document input into a computer, as if printed as taught by Takakura, because Takakura teaches "a format can be changed on a page unit ...by a single output instruction" (col. 2, lines 62-67, col. 3, lines 1-18), and "figure input editing ...can be easily performed by the screen control process" (col. 6, lines 8-11), and Tabata teaches above displaying a document representation along with binding indicia positioned as-if printed. This in turn would enable a user to print the document once, by visualizing the document and its contents with the desired binding location as if printed, and assembled, before the document is actually printed, thus avoiding trial and error printing.

Conclusion

For all of the reasons stated above the Examiner believes that the rejections should be sustained.

Respectfully submitted,

Cesar B. Paula

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